3. The computer-implemented method of claim 2, further comprising:

receiving, from a user via a computing device, first 3D manufacturing instructions associated with a first item not in the plurality of items; and

providing instructions to a manufacturing apparatus to manufacture the first item based on the first 3D manufacturing instructions; and

generating delivery instructions for delivering the manufactured first item to the user.

4. A computer-implemented method, comprising:

under control of one or more computer systems configured with executable instructions,

providing an electronic marketplace for items, the items including a plurality of items, wherein each item of the plurality has associated with the item separate 3D manufacturing instructions in a catalog associated with the electronic marketplace; and

responsive to a selection of one of the items of the plurality, providing instructions to a manufacturing apparatus to manufacture the selected item based on the 3D manufacturing instructions.

5. The computer-implemented method of claim 4, further comprising:

responsive to a request by a user for one of the items of the plurality, providing to the user access to the 3D manufacturing instructions associated with the requested item such that the user can use the 3D manufacturing instructions in a manufacturing apparatus to manufacture the requested item.

6. The computer-implemented method of claim 4, further comprising:

receiving, from a user via a computing device, first 3D manufacturing instructions associated with a first item not in the plurality of items; and

providing instructions to a manufacturing apparatus to manufacture the first item based on the first 3D manufacturing instructions; and

generating delivery instructions for delivering the manufactured first item to the user.

7. The computer-implemented method of claim 6, further comprising:

responsive to a request by a user for one of the items of the plurality, receiving payment for the item and providing to the user access to the 3D manufacturing instructions associated with the requested item such that the user can use the 3D manufacturing instructions in a manufacturing apparatus to manufacture the requested item; and

generating delivery instructions for delivering the manufactured item to the user.

8. A computer-implemented method, comprising:

under control of one or more computer systems configured with executable instructions,

providing an electronic marketplace for items, the items including a plurality of items, wherein each item of the plurality has associated with the item separate 3D manufacturing instructions in a catalog associated with the electronic marketplace; and

responsive to a request by a user for one of the items of the plurality, receiving payment for the item and providing to the user access to the 3D manufacturing instructions associated with the requested item such that the user can use the 3D manufacturing instructions in a manufacturing apparatus to manufacture the requested item.

9. The computer-implemented method of claim 8, wherein the access to the 3D manufacturing instructions is limited by a length of time.

10. The computer-implemented method of claim 9, wherein the length of time is based at least in part on an estimated amount of time for a manufacturing apparatus to manufacture the selected item.

11. The computer-implemented method of claim 9, wherein the length of time is based at least in part on a time elapsed from when the access was first provided to the user.

12. The computer-implemented method of claim 8, wherein the access to the 3D manufacturing instructions is limited by a number of times that the user can use the 3D manufacturing instructions in a manufacturing apparatus to manufacture the selected item.

13. The computer-implemented method of claim 12, wherein the number of times is one.

14. The computer-implemented method of claim 8, further comprising receiving information about a manufacturing apparatus associated with the user, wherein access to the 3D manufacturing instructions is provided as executable code for causing the manufacturing apparatus associated with the user to produce the requested item.

15. The computer-implemented method of claim 8, wherein the access to the 3D manufacturing instructions includes encrypted data.

16. The computer-implemented method of claim 8, wherein the requested item corresponds to a sample of a characteristic of an item not included in the plurality.

17. The computer-implemented method of claim 16, wherein the characteristic is texture.

18. The computer-implemented method of claim 8, further comprising:

receiving, from a user via a computing device, first 3D manufacturing instructions associated with a first item not in the plurality of items;

providing instructions to a manufacturing apparatus to manufacture the first item based on the first 3D manufacturing instructions; and

generating delivery instructions for delivering the manufactured first item to the user.

19. The computer-implemented method of claim 18, further comprising:

responsive to a selection of one of the items of the plurality, providing instructions to a manufacturing apparatus to manufacture the selected item based on the associated 3D manufacturing instructions; and

generating delivery instructions for delivering the manufactured selected item to the user.

20. A computer-implemented method, comprising:

under control of one or more computer systems configured with executable instructions,

providing an electronic marketplace for items, the items including a plurality of items, wherein each item of the plurality has associated with the item separate 3D manufacturing instructions in a catalog associated with the electronic marketplace;

responsive to an order by a user for one of the items of the plurality, providing information for manufacturing the ordered item based on the 3D manufacturing instructions associated with the ordered item;

responsive to a submission by a user of first 3D manufacturing instructions for a first item not in the plurality of items, providing instructions to a manufacturing appa-